

EXPRESSION OF FACTOR VII AND IX ACTIVITIES
IN MAMMALIAN CELLS

Abstract of the Disclosure

Methods are disclosed for producing proteins having biological activity for blood coagulation mediated by Factor VIIa ~~or Factor IX~~. The proteins are produced by mammalian host cells which have been stably transfected with a DNA construct containing a nucleotide sequence which codes at least partially for either Factor VII ~~or Factor IX~~. The nucleotide sequence comprises a first nucleotide sequence encoding a calcium binding domain, joined to a second nucleotide sequence positioned downstream of the first sequence. In particular, the first nucleotide sequence may be derived from a genomic clone or cDNA clone of Factor VII. The second sequence encodes a catalytic domain for the serine protease activity of ~~either~~ Factor VIIA ~~or Factor IX~~. The joined sequences code for proteins having substantially the same biological activity for blood coagulation as ~~either~~ Factor VIIa ~~or Factor IX~~.